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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MULL, FRED H

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/584,715	Applicant(s) KERAI ET AL.	
	Examiner FRED H. MULL	Art Unit 3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-41, 43, 45, 46, 48-57, 59 and 61-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 31-41, 43, 45, 46, 48-57, 59 and 61-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 June 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 31-41, 43, 45-46, 48-57, 59, and 61-64 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Each independent claim now recites a limitation to a “fixed delay communications channel” (e.g. claim 31, line 9). However, it is unclear what this means. The only disclosure of a “fixed delay” in the specification is p. 14, 3rd ¶. However, this does not specify what it means to be a fixed delay communication channel. Note that, as pointed out in the previous action, the incorporation by reference of a hyperlink is not permitted (37 CFR 1.57(d)), and that even if it was, incorporation by reference of essential subject matter must be to a US Patent or US Patent Application Publication (37 CFR 1.57(c)). Additionally, the cited webpage no longer exists.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 56 recites the limitation "the mobile communications device" in line 6.

There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 31-37, 39-41, 43, 46, 50, 52, 56-57, 59, and 61-64 rejected under 35 U.S.C. 102(b) as being anticipated by Bloebaum.

In regard to claims 31-32, 35-37, 56-57, and 61, Bloebaum discloses:

receiving at least one of timing information and location information from a cellular communications network (24, Fig. 1; ¶18, lines 7-8; ¶21-22), where ¶21-22 discloses information sent to a device for aiding; and

transmitting the at least one timing information and location information to an adjacent satellite positioning device (¶19-22) using a fixed delay wireless communications channel (22, 24, Fig. 1), where, in the case that both 22 and 24 are stationary during the 24 to 22 aiding, all the communications links will have a fixed delay, since it will take the signals the same amount of time to follow the same (distance) path.

In regard to claim 33, Bloebaum further discloses the adjacent device being a mobile communications device, the mobile communications device comprising a

wireless receiver configured to receive at least one of the said timing information and location information from a cellular communications network (22, Fig. 1; ¶19-22).

In regard to claims 34, 39, and 41, Bloebaum further discloses the mobile communications device further comprises a second wireless communications transmitter configured to transmit said at least one of the said timing information and location information to the adjacent satellite positioning device, where aided mobile, after determining its position, and then become an aiding mobile for a third mobile device.

In regard to claims 40 and 63, Bloebaum further discloses displaying the received positional estimate on a mobile communications device (¶22; screens, 22, 24, Fig. 1).

In regard to claims 43 and 59, Bloebaum further discloses a memory, wherein said positional estimates are stored in said memory (¶18).

In regard to claim 46, Bloebaum further discloses the fixed delay communication channel is a synchronized short range wireless communication channel (¶27, final sentence).

In regard to claim 50, Bloebaum further discloses the at least the said timing information and location information comprises at least one of: a base transceiver station timing signal; a base transceiver station positional estimate (¶28).

In regard to claim 52, Bloebaum further discloses the mobile communications device wireless transceiver is at least one of: a GSM transceiver; a WCDMA transceiver; a UMTS transceiver; a CDMA2000 transceiver (¶46).

In regard to claim 62, Bloebaum further discloses receiving a positional estimate from the adjacent satellite positioning device using the fixed delay wireless communications channel (§§19-22).

In regard to claim 64, Bloebaum further discloses transmitting the positional estimate over the cellular communications network (§§19, 22).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 31-41, 43, 45-46, 48-57, 59, and 61-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over IDS document Yoneya in further view of either of {IDS document Koorapaty or Garin}.

In regard to claim 31, Yoneya discloses:

a wireless receiver configured to receive from a cellular communications network (communications link between CL222 and 2201, Fig. 22), and

a wireless transmitter configured to transmit to an adjacent satellite positioning device (communications link between CL222 and Grv).

Yoneya further discloses determining approximate timing information and location information after receiving a first satellite positioning satellite signals, which then aids in acquisition of additional satellite signals (§§728).

Yoneya further discloses the satellite positioning wireless receiver and the mobile communications device wireless transmitter are arranged to communicate between

each other over a fixed delay short range wireless communication channel (§708), the Bluetooth channel.

Yoneya fails to disclose receiving at least one of timing information and location information from the cellular communications network and transmitting it to the satellite positioning device.

Koorapaty discloses providing approximate time and location information to a satellite positioning receiver in order to decrease time-to-first-fix and to provide sensitivity enhancements (§4), where this aiding information is sent from the cellular communications network (signal from 40 to 20, Fig. 1).

Garin discloses providing approximate time and location information to a satellite positioning receiver in order to decrease time-to-first-fix, particularly for E-911 phone calls (col. 6, line 55 to col. 7, line 10), where this aiding information is sent from the "wireless communications network" (col. 6, lines 56-59), where the "wireless communications network" can be a cellular communications network (col. 3, lines 23-26).

It would have been obvious to include cellular network-based aiding in order to provide the user their position as soon as possible, rather than have the satellite positioning receiver go through each satellite until it finds a satellite that is in view as its first satellite. Aiding information allows the satellite positioning receiver to know all the satellites that should be in view before it looks for even the first satellite. As Koorapaty states: "Generally, without this aiding information, acquiring the satellite signals and computing the receiver's exact location could take much longer. This delay could have a

serious impact on the performance of mobile location-based services, which tend to be time-sensitive." (§4). Additionally, with cellular-based E-911 calls, time can be of the essence, and the sooner a location is provided to emergency personnel, the sooner they can be at the aid of the user.

In regard to claim 35, Yoneya further discloses the satellite positioning device comprises a satellite positioning receiver (Grv, Fig. 22).

In regard to claim 36, Yoneya further discloses the satellite positioning device further comprises a wireless transceiver comprising means for receiving at least one of the said timing information and location information from the adjacent mobile communications device (communications link between Grv and CL222).

In regard to claim 37, Yoneya further discloses the satellite positioning device further comprises a satellite positioning positional estimator for providing a positional estimate dependent on the received satellite positioning signal and at least one of the said timing information and location information (§708).

In regard to claim 52, Yoneya further discloses the mobile communications device wireless transceiver is at least one of: a GSM transceiver; a WCDMA transceiver; a UMTS transceiver; a CDMA2000 transceiver (§666, lines 8-14).

In regard to claims 32, 61-62, and 64, Yoneya discloses:

a satellite positioning receiver (Grv, Fig. 22) configured to receive a satellite positioning signal (communications link between Grv and satellite positioning Satellite);

a wireless receiver configured to receive from an adjacent device (communications link between Grv and CL222); and
a satellite positioning positional estimator for providing a positional estimate (¶708).

Yoneya further discloses determining approximate timing information and location information after receiving a first satellite positioning satellite signals, which then aids in acquisition of additional satellite signals (¶728).

Yoneya further discloses the satellite positioning wireless receiver and the mobile communications device wireless transmitter are arranged to communicate between each other over a fixed delay short range wireless communication channel (¶708), the Bluetooth channel.

Yoneya fails to disclose receiving at least one of timing information and location information from the cellular communications network and transmitting it to the satellite positioning device.

Koorapaty discloses providing approximate time and location information to a satellite positioning receiver in order to decrease time-to-first-fix and to provide sensitivity enhancements (¶4), where this aiding information is sent from the cellular communications network (signal from 40 to 20, Fig. 1).

Garin discloses providing approximate time and location information to a satellite positioning receiver in order to decrease time-to-first-fix, particularly for E-911 phone calls (col. 6, line 55 to col. 7, line 10), where this aiding information is sent from the "wireless communications network" (col. 6, lines 56-59), where the "wireless

communications network" can be a cellular communications network (col. 3, lines 23-26).

It would have been obvious to include cellular network-based aiding in order to provide the user their position as soon as possible, rather than have the satellite positioning receiver go through each satellite until it finds a satellite that is in view as its first satellite. Aiding information allows the satellite positioning receiver to know all the satellites that should be in view before it looks for even the first satellite. As Koorapaty states: "Generally, without this aiding information, acquiring the satellite signals and computing the receiver's exact location could take much longer. This delay could have a serious impact on the performance of mobile location-based services, which tend to be time-sensitive." (¶4). Additionally, with cellular-based E-911 calls, time can be of the essence, and the sooner a location is provided to emergency personnel, the sooner they can be at the aid of the user.

In regard to claim 33, Yoneya further discloses the adjacent device being a mobile communications device, the mobile communications device comprising a wireless receiver configured to receive at least one of the said timing information and location information from a cellular communications network (communications link between CL222 and 2201, Fig. 22).

In regard to claim 34, Yoneya further discloses the mobile communications device further comprises a second wireless communications transmitter configured to transmit said at least one of the said timing information and location information to the

adjacent satellite positioning device (¶708, lines 5-10, where multiple devices can access the Bluetooth satellite positioning receiver).

In regard to claim 38, Yoneya further discloses the satellite positioning device wireless transceiver further comprises means for directly transmitting said positional estimate to the mobile communications device (communications link between Grv and CL222; ¶708, where the link is a Bluetooth connection).

In regard to claim 39, Yoneya further discloses the mobile communications device further comprises: the second wireless transceiver comprising means for receiving the said positional estimate (¶708), a Bluetooth transceiver.

In regard to claims 40 and 63, Yoneya further discloses the mobile device further comprises a display for displaying said received positional estimate to the user (¶14, 43).

In regard to claim 41, Yoneya further discloses said mobile communications device wireless transceiver is arranged to transmit the received positional estimates over said cellular communications network (col. 6, line 55 to col. 7, line 10), where the position is sent out over the network during an e-911 phone call.

In regard to claim 43, Yoneya further discloses a memory, wherein said positional estimates are stored in said memory (¶706, 1049, 1156-1158).

In regard to claim 45, Yoneya further discloses the satellite positioning wireless transceiver and the mobile communications device second wireless transceiver are arranged to communicate between each other over an enhanced synchronised connection orientated (eSCO) communication channel (¶708), the Bluetooth channel.

In regard to claim 46, Yoneya further discloses the fixed delay communication channel is a synchronized short range wireless communication channel (§708), the Bluetooth channel.

In regard to claim 48, Yoneya further discloses the communication channel is a Bluetooth communications channel (§708), the Bluetooth channel.

In regard to claim 49, Yoneya further discloses the mobile communications device second wireless transceiver and the satellite positioning wireless transceiver is at least one of: a Bluetooth transceiver; a IrDA transceiver; a IEEE 802.11 transceiver (§708).

In regard to claim 50, Koorapaty further discloses the at least the said timing information and location information comprises at least one of: a base transceiver station timing signal; a base transceiver station positional estimate (§7).

In regard to claim 51, Yoneya further discloses the satellite positioning device further comprises a connector and the mobile communications device further comprises a connector, wherein the satellite positioning device connector is physically connected to the mobile device connector (§708, line 7).

In regard to claim 53, Yoneya further discloses an indicator, said indicator comprising at least one of: at least one LED; a buzzer (§662).

In regard to claim 54, it is well known to provide electronic devices, such as satellite positioning devices, with a switch arranged to switch said device on and off.

In regard to claim 55, it is well known to provide electronic devices, such as satellite positioning devices, with a battery arranged to provide a power source for said device.

In regard to claim 56, Yoneya discloses:

receiving a satellite positioning signal on a satellite positioning device (communications link between Grv and satellite positioning Satellite, Fig. 22);

receiving a signal from a cellular communications network on a mobile communications device (communications link between 2201 and CL222), the mobile communications device located at substantially the same location as the satellite positioning device (CL222; communication link between CL222 and Grv);

determining a positional estimate dependent on the received satellite positioning signal and the third signal on the satellite positioning device (§708).

Yoneya further discloses determining approximate timing information and location information after receiving a first satellite positioning satellite signals, which is then sent to said mobile communications device and onto the satellite positioning device in order to aid in acquisition of additional satellite signals (§728).

Yoneya further discloses the satellite positioning wireless receiver and the mobile communications device wireless transmitter are arranged to communicate between each other over a fixed delay short range wireless communication channel (§708), the Bluetooth channel.

Yoneya fails to disclose receiving at least one of timing information and location information from the cellular communications network and transmitting it to the satellite positioning device.

Koorapaty discloses providing approximate time and location information to a satellite positioning receiver in order to decrease time-to-first-fix and to provide sensitivity enhancements (§4), where this aiding information is sent from the cellular communications network (signal from 40 to 20, Fig. 1).

Garin discloses providing approximate time and location information to a satellite positioning receiver in order to decrease time-to-first-fix, particularly for E-911 phone calls (col. 6, line 55 to col. 7, line 10), where this aiding information is sent from the "wireless communications network" (col. 6, lines 56-59), where the "wireless communications network" can be a cellular communications network (col. 3, lines 23-26).

It would have been obvious to include cellular network-based aiding in order to provide the user their position as soon as possible, rather than have the satellite positioning receiver go through each satellite until it finds a satellite that is in view as its first satellite. Aiding information allows the satellite positioning receiver to know all the satellites that should be in view before it looks for even the first satellite. As Koorapaty states: "Generally, without this aiding information, acquiring the satellite signals and computing the receiver's exact location could take much longer. This delay could have a serious impact on the performance of mobile location-based services, which tend to be time-sensitive." (§4). Additionally, with cellular-based E-911 calls, time can be of the

essence, and the sooner a location is provided to emergency personnel, the sooner they can be at the aid of the user.

In regard to claim 57, Garin further discloses the step of transmitting said determined positional estimate over the wireless communications link to the mobile communications device (col. 6, line 55 to col. 7, line 10), where the position is sent out over the network during an e-911 phone call.

In regard to claim 59, Yoneya further discloses the steps of; storing the received positional estimate in a memory (¶706, 1049, 1156-1158); transmitting the stored positional estimate over the cellular communications network (col. 6, line 55 to col. 7, line 10), where the position is sent out over the network during an e-911 phone call.

5. The examiner also finds the following reference(s) relevant:

Walters and Dooley, which are similar to Yoneya.

Applicant is encouraged to consider these documents in formulating their response (if one is required) to this action, in order to expedite prosecution of this application.

6. The examiner also finds the following reference(s) relevant, but not prior art:

Pomerantz (Fig. 1 and 3; ¶33), filed Aug. 26, 2004, which is less than one year before the present application's filing date of Dec. 29, 2004, and is after the Foreign priority date of Dec. 30, 2003, of which a Certified Copy has been submitted.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Response to Arguments

8. Applicant's arguments on p. 11-12, with respect to various objection(s), have been fully considered and are persuasive. The objections have been withdrawn.

9. Applicant's arguments on p. 12-14, with respect to the rejection(s) over Yoneya have been fully considered but they are not persuasive.

Applicant argues that Koorpaty does not teach a mobile communications device having a wireless transmitter configured to transmit at least one of the of the timing information and location information to an adjacent satellite positioning device wherein

the wireless transmitter is further configured to transmit to the adjacent satellite positioning device using a fixed delay communications channel. In other words, that the transmitter is a mobile device rather than a base station. However, in independent claim 31, mobile communications device is referred to only in the preamble, and is thus not given patentable weight. This feature is not present at all in independent claims 32 and 61. In independent claim 56, the status of the term is unclear due to a 35 USC 112, 2nd paragraph rejection over the use of the term.

A new rejection has been added in response to the amended claim language.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRED H. MULL whose telephone number is (571)272-6975. The examiner can normally be reached on Monday through Friday from approximately 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza can be reached on 571-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Art Unit: 3662

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Fred H. Mull
Examiner
Art Unit 3662

/F. H. M./
Examiner, Art Unit 3662

/Thomas H. Tarcza/

Supervisory Patent Examiner, Art Unit 3662